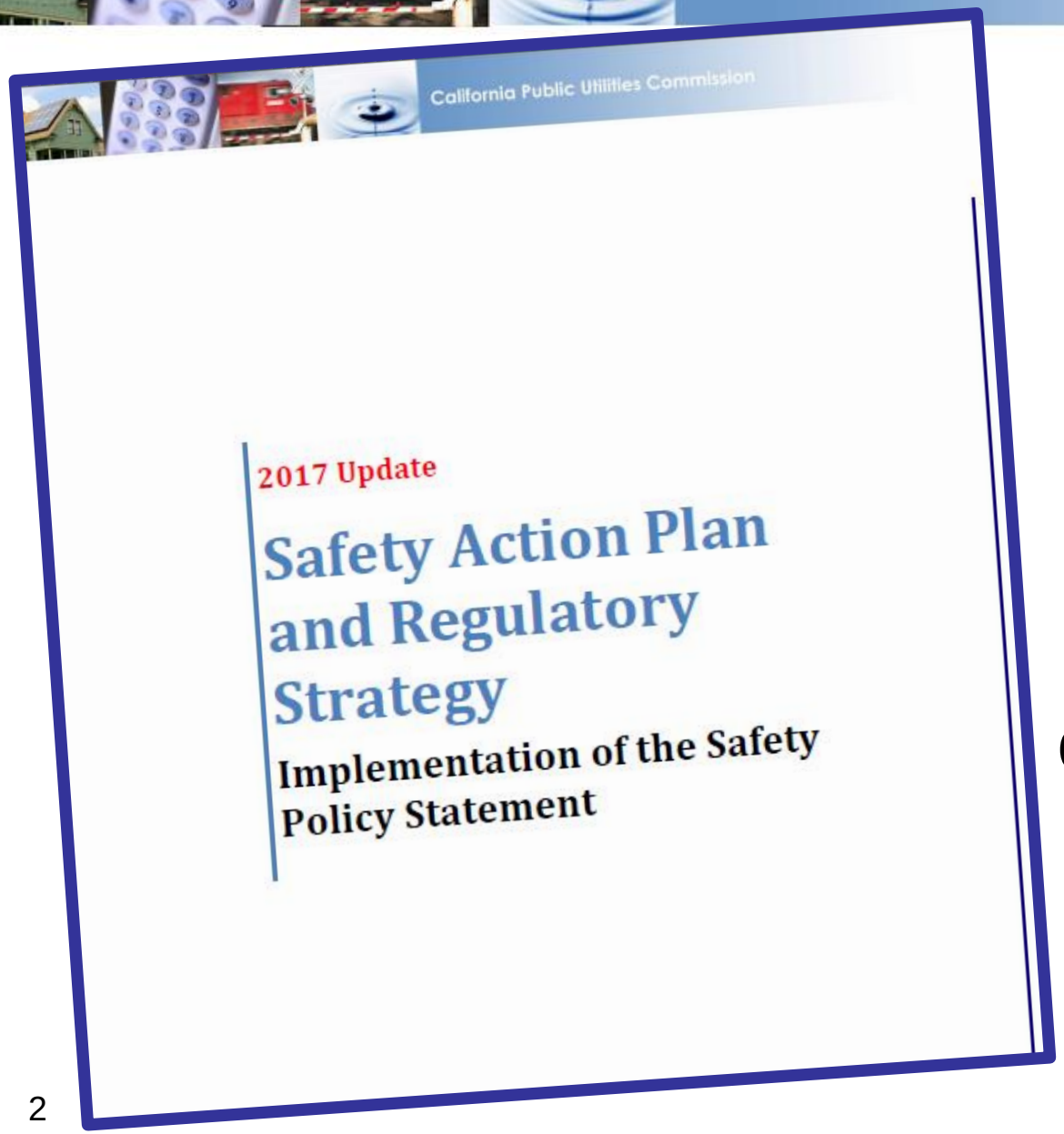
CPUC Commissioner Committee on Emerging Trends

CPUC Office of the Safety Advocate (OSA)
Application of Safety Reporting Systems for California Energy Utilities

December 13, 2017



2017 Update

CPUC Safety Action Plan: Action Item 4: Evaluate Application of a Safety Reporting System for California Utilities

Action Item 4 - Safety Reporting System

The aviation industry employs a safety reporting system, administered by NASA, to collect information on safety incidents and situations that may be precursors to larger events. This safety reporting system, the ASRS, is voluntary, confidential, non-punitive, and independent. NASA reports on data collected by the ASRS to the airline industry, airline unions and the FAA so they can act on the information submitted to identify and communicate systemic deficiencies in order to lessen the likelihood of aviation accidents. Aviation industry and FAA responses to ASRS data are not enforcement actions; rather they are informed responses that prevent precursor events from becoming larger safety hazards or incidents.

The success of the ASRS shows the benefits of having a third party, independent of the regulated entities and the regulator itself, analyzing safety performance and making recommendations. Therefore, inspired by the success of the ASRS, staff will examine options for incorporating independent, third party analysis into the Commission's safety regulation.

Staff will explore the potential applicability of an ASRS-like safety reporting system for California utilities. Staff's recommendation will consider such topics as: whether to initiate a safety reporting system pilot in California; the industries and entities to be covered by the pilot; the entity that could serve as the independent third party data collector; and how a safety reporting system pilot could be structured to ensure that it is voluntary, confidential, non-punitive, and independent, similar to the airline safety reporting system.

- ***The Director of the Office of Safety Advocates is the lead responsible for making recommendations to the Commission by fourth quarter 2017.***

Application of Safety Reporting Systems (SRS) for California Utilities

- How a Safety Reporting System is different from other reporting systems
- Examples of Safety Reporting Systems used by regulators in other industries
- How a Safety Reporting System could improve safety for CA Energy Utilities

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CPUC/Utility Program Comparison

Program	Reporter	Reporting to	Provides anonymity?	Enforcement Action
Safety Flag	CPUC employee	CPUC	Optional	Yes
Whistleblower	Utility employee or contractor	CPUC	Yes	Yes
IOU Near Miss	Utility employee or contractor	IOU	Optional	No
Safety Reporting System	Utility employee or contractor or member of the public	Independent third party	Yes	No

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Examples of Safety Reporting Systems used by regulators in other industries

- **Aviation: Federal Aviation Administration (FAA)**
- **Rail: Federal Rail Administration (FRA)**
- **Firefighting: International Association of Fire Chiefs (IAFC) Non-regulatory)**
- **Offshore Oil and Gas: Bureau of Safety and Environmental Enforcement (BSEE)**

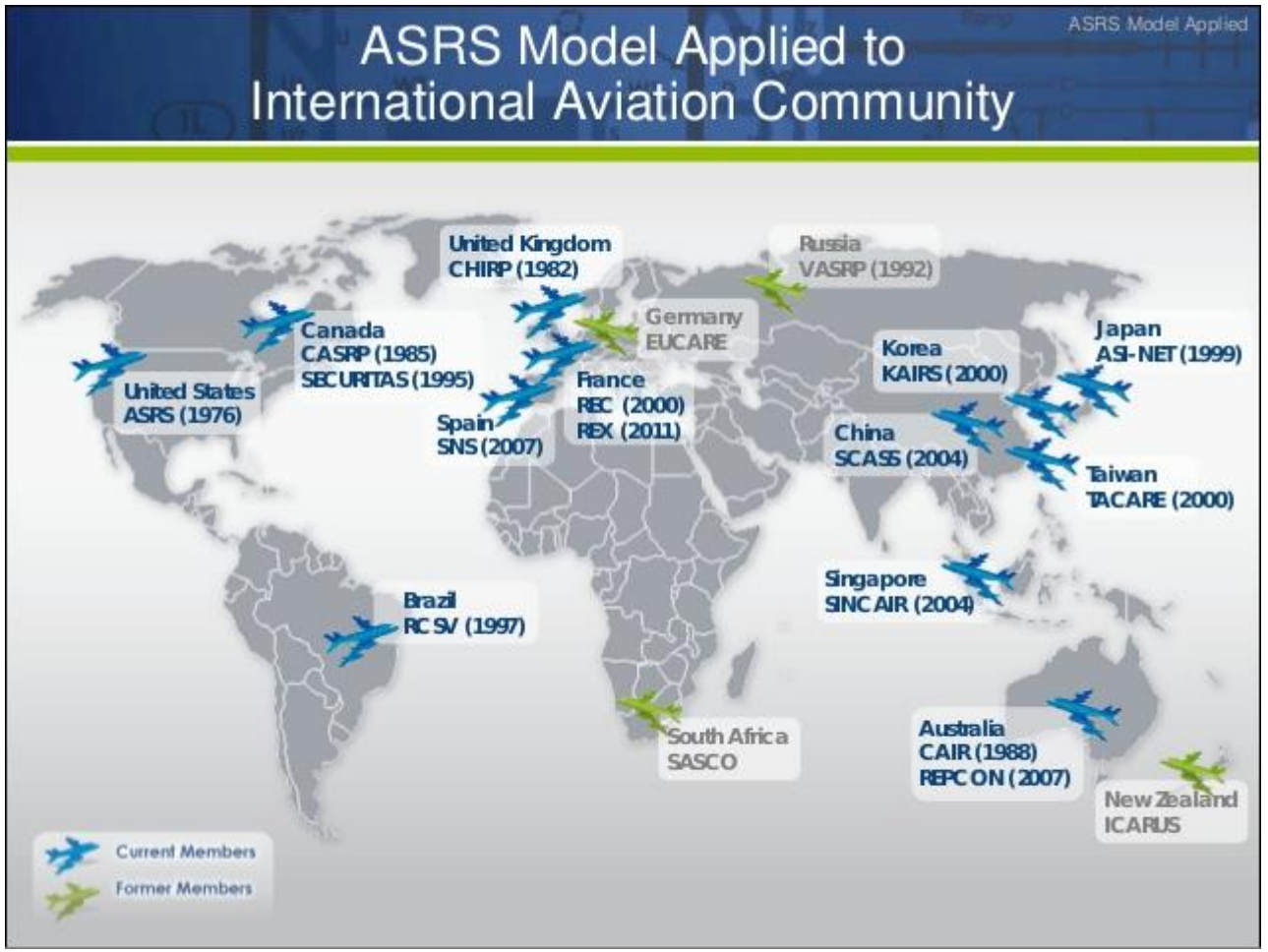
Linda Connell, NASA ASRS Director
Human Systems Integration Division
NASA Ames Research Center

AVIATION SAFETY REPORTING SYSTEM

In 2014, the CPUC's Safety & Enforcement Division conducted a webcast to explore application of a safety reporting system for California utilities. NASA was invited to present a detailed background on the history and value of safety reporting systems:
https://web.archive.org/web/20150905235447/http://www.cpuc.ca.gov/NR/rdonlyres/392F9108-B5F3-428F-A59C-0761FC1DD13D/0/CPUCASRSConnellFINALFeb2014.pdf

Webcast:
http://www.adminmonitor.com/ca/cpuc/workshop/20140213/
(Select "Clip 1" from the upper right).

FAA: Aviation Industry:



FAA: Aviation Industry:

Federal Aviation Administration

The FAA's "Aviation Safety Action Program (ASAP)" reporting program encompasses safety reporting though airlines.

It complements the FAA NASA ASRS program tool.

Aviation Safety Action Program

The goal of the Aviation Safety Action Program (ASAP) is to enhance aviation safety through the prevention of accidents and incidents. Its focus is to encourage voluntary reporting of safety issues and events that come to the attention of employees of certain certificate holders.

To encourage an employee to voluntarily report safety issues even though they may involve an alleged violation of Title 14 of the Code of Federal Regulations (14 CFR), enforcement-related incentives have been designed into the program. An ASAP is based on a safety partnership that will include the Federal Aviation Administration (FAA) and the certificate holder, and may include any third party such as the employee's labor organization.

FAA: Aviation Industry:

MEASURING SUCCESS

The ASAP program is at the heart of safety culture: in order to build a strong safety culture, the organization needs to have structures, policies, procedures, and practices in place that support the desired behaviors from the employees and managers. The ASAP program enables reporting of errors made by a member of the participating employee group without fear of reprisal from the management or from the regulator. Such a behavioral shift is consistent with the higher level of professionalism expected in an organization with a strong safety culture. Further, measurement and improvement of a safety culture is expected in an SMS program, which is required across the aviation industry.

In order to measure the success of an ASAP program, the following four key metrics are presented:

- Change in the overall safety culture of the organization
- Employee–management Trust
- Changes resulting from ASAP reports
- Investment analysis of ASAP program

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Rail Industry (FRA): Confidential Close Call Reporting System - C³RS

http://www.youtube.com/watch?v=0J-7QlPNFPQ

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Firefighters:
Near Miss Reporting System

http://www.youtube.com/watch?v=4uMmhOf6L6o

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Offshore Oil & Gas Industry: Bureau of Safety and Environmental Enforcement (BSEE)

BSEE Offshore Oil & Gas

"What is the SafeOCS Program?

SafeOCS is a voluntary, confidential reporting program that collects and analyzes information about near-misses. SafeOCS then utilizes this information to identify industry-wide safety trends for advancing safety in oil and gas operations on the Outer Continental Shelf (OCS).

Near-miss reports are voluntary and confidential and can be submitted by all offshore workers at all levels. The identity of the reporters is protected by Federal law and cannot be released."

BSEE Offshore Oil & Gas

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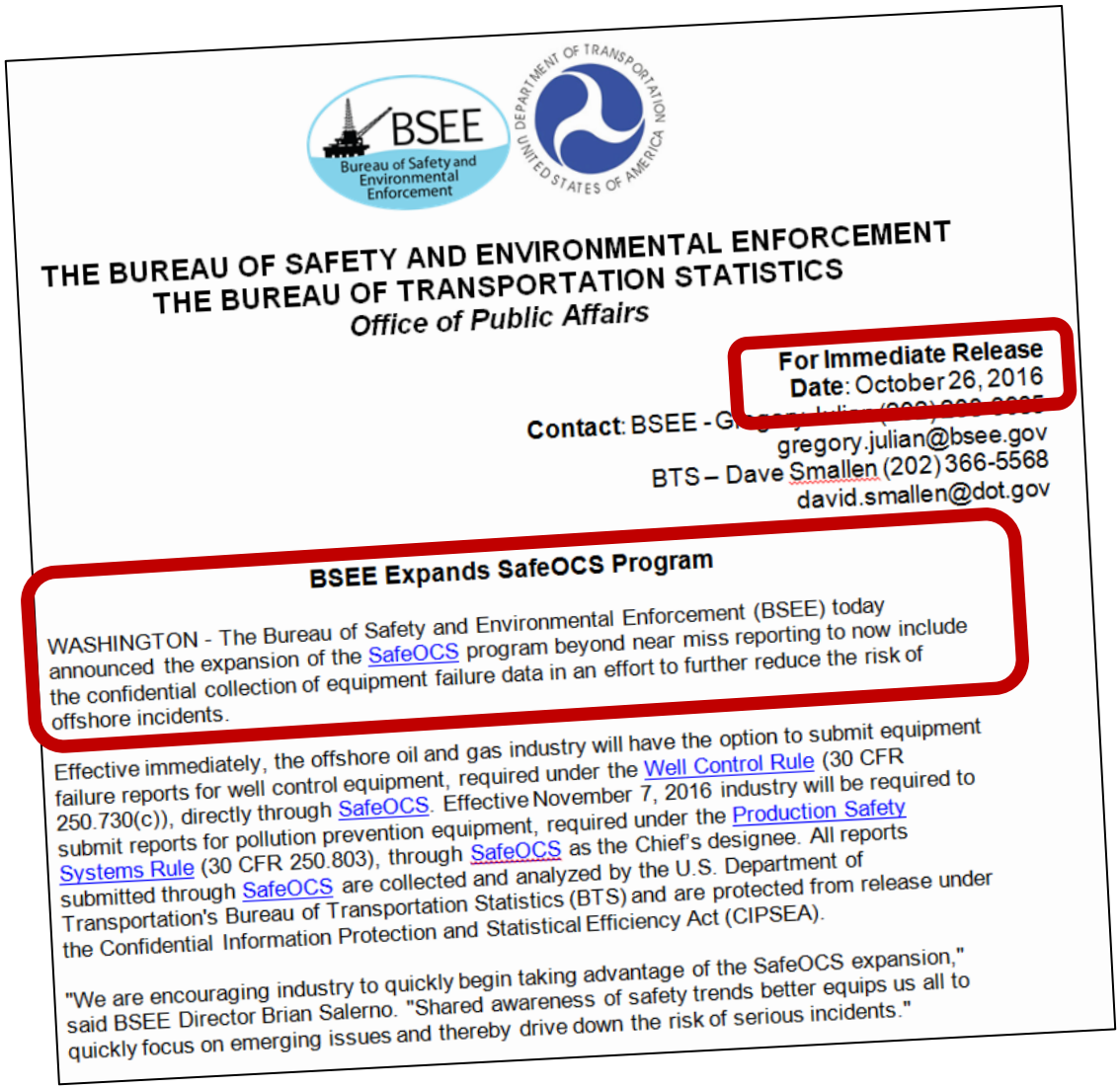
The BSEE Offshore Oil & Gas Safety Reporting System encompasses Equipment Failure and Near Misses.

"Near Misses" are broadly defined:

"What is a near-miss?

A "near-miss" is any unsafe condition(s) or event(s), or combination thereof that could have resulted in human injury, environmental damage, or negative business impact."

BSEE Offshore Oil & Gas



THE BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT
THE BUREAU OF TRANSPORTATION STATISTICS
Office of Public Affairs

For Immediate Release
Date: October 26, 2016

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BSEE Expands SafeOCS Program

WASHINGTON - The Bureau of Safety and Environmental Enforcement (BSEE) today announced the expansion of the SafeOCS program beyond near miss reporting to now include the confidential collection of equipment failure data in an effort to further reduce the risk of offshore incidents.

Effective immediately, the offshore oil and gas industry will have the option to submit equipment failure reports for well control equipment, required under the Well Control Rule (30 CFR 250.730(c)), directly through SafeOCS. Effective November 7, 2016 industry will be required to submit reports for pollution prevention equipment, required under the Production Safety Systems Rule (30 CFR 250.803), through SafeOCS as the Chief's designee. All reports submitted through SafeOCS are collected and analyzed by the U.S. Department of Transportation's Bureau of Transportation Statistics (BTS) and are protected from release under the Confidential Information Protection and Statistical Efficiency Act (CIPSEA).

"We are encouraging industry to quickly begin taking advantage of the SafeOCS expansion," said BSEE Director Brian Salerno. "Shared awareness of safety trends better equips us all to quickly focus on emerging issues and thereby drive down the risk of serious incidents."

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How a Safety Reporting System could improve safety for CA Energy Utilities

- Goals
- Principles
- Challenges
- Opportunities
- Pilot Program Parameters
- Next Steps

How a Safety Reporting System could improve safety for CA Energy Utilities

- **Goals**
  - **Prevent Accidents**
  - **Improve Safety and Safety Culture**
  - **Uncover and mitigate unidentified or underestimated risks**
  - **Promote Root Cause Analyses and Corrective Actions**
  - **Disseminate Lessons Learned**
  - **Disseminate Best Practices**
  - **Evaluate implementation of Best Practices**

How a Safety Reporting System could improve safety for CA Energy Utilities

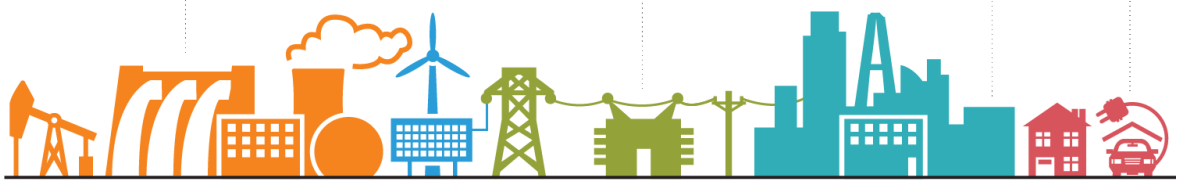
- **Principles**
  - **Voluntary**
  - **Confidential**
  - **Non-Punitive**
  - **Independent**

How a Safety Reporting System could improve safety for CA Energy Utilities

- **Challenges**
  - **Funding**

  - **Regulator – Company – Labor Agreement**
  - **Legislative Support (Helpful)**

  - **New for the Onshore Gas & Electric Utility Industry**



How a Safety Reporting System could improve safety for CA Energy Utilities

- **Opportunities**
  - **Apply and test a collaborative regulator/company/labor tool for improving safety to complement traditional penalty tools**
  - **Integrate lessons learned into Commission safety management, general orders, decisionmaking, and policies**
  - **Promote quicker development, dissemination and implementation of best practices to complement traditional slower general order revision processes**
  - **Evaluate utility implementation of best practices and their effectiveness**
  - **Provide an infrastructure and partnership to share safety lessons among the regulator, utilities and a widely dispersed utility work force.**

How a Safety Reporting System could improve safety for CA Energy Utilities

- **Pilot Program Parameters**
  - **Regulator/company/labor agreement on value and framework**
  - **Legislative and utility funding mechanism**
  - **Legislative support**
  - **Scope, content, and format of safety reports**
  - **Data aggregation, database, analysis and dissemination structure**
  - **Regulator/company/labor partnership forums**
  - **Agreement on pilot program evaluation criteria**
  - **Evaluation of utility implementation of best practices and corrective actions**
  - **Evaluation of pilot program effectiveness**

How a Safety Reporting System could improve safety for CA Energy Utilities

- **Next Steps**
  - **Seek resolution from the Commission directing staff to engage with utilities, labor, and legislative staff[1], to collaboratively develop a pilot proposal for a California Energy Utility Safety Reporting System.**
  - **Continue to research existing safety reporting systems to determine best practices.**

[1]SB-1049, 2016, Hill, “Electrical and Gas corporations: Close Call Reporting Programs.” https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201520160SB1049

Questions